

CLAIMS

What is claimed is:

1. A system for facilitating communication between a user and a network of information items, comprising:
 - a remote data storage device for storing the information items, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;
 - a client device having a user interface program thereon, for allowing a user to interface with the network and request the information items;
 - a server device, in communication with the client device and in communication with the remote storage device, for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in a server cache memory;
 - a data collection module for collecting and storing successive user actions; and
 - a probability module in communication with the data collection module for calculating a probability for the links, and for comparing the probability to a predetermined threshold value to identify predicted links, and for retrieving the predicted information items associated with the links from the remote data storage devices and storing the predicted information items in the server cache memory in advance of a user request for the selected information items.
2. The system of claim 1, wherein the probability module updates the probabilities assigned to the links with each successive user activity.

3. The system of claim 1, wherein the probability module aborts retrieving the predicted information items if the user requests an information item other than the predicted information items.

4. The system of claim 1, wherein the probability module continues retrieving the predicted information items from the remote data storage devices and storing the predicted information items in the server cache memory if the user requests the predicted information item.

5. The system of claim 4, wherein the probability module downloads the user requested information item to the client from the server cache memory.

6. A method for facilitating communication between a user and a network of information items, comprising:

storing the information items on a remote data storage device, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;

configuring a client device having a user interface program thereon, to allow a user to interface with the network and request a download of the information items;

configuring a server device for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in server cache memory;

collecting and storing successive user actions;

calculating a probability for the links;

comparing the probability to a predetermined threshold value;

retrieving the information items associated with the links from the remote data storage devices; and

storing the information items in the server cache memory in advance of a user request for the selected information items.

7. The method of claim 6, further comprising:

updating the probabilities assigned to the links with each successive user activity.

8. The method of claim 6, further comprising:

retrieving the predicted information items if the user requests an information item other than the predicted information items.

9. The method of claim 6, further comprising:

retrieving the predicted information items from the remote data storage devices; and
storing the predicted information items in the server cache memory if the user requests the predicted information item.

10. The method of claim 9, further comprising:

downloading the user requested information item to the client from the server cache memory.

11. A method for facilitating communication between a user and a network of

information items, comprising:

means for storing the information items on a remote data storage device, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;

means for configuring a client device having a user interface program thereon, to allow a user to interface with the network and request a download of the information items;

means for configuring a server device for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in server cache memory;

means for collecting and storing successive user actions;

means for calculating a probability for the links;

means for comparing the probability to a predetermined threshold value;

means for retrieving the information items associated with the links from the remote data storage devices; and

means for storing the information items in the server cache memory in advance of a user request for the selected information items.

12. The method of claim 11, further comprising:

means for updating the probabilities assigned to the links with each successive user activity.

13. The method of claim 11, further comprising:

means for retrieving the predicted information items if the user requests an information item other than the predicted information items.

14. The method of claim 11, further comprising:

means for retrieving the predicted information items from the remote data storage

devices; and

means for storing the predicted information items in the server cache memory if the user requests the predicted information item.

15. The method of claim 14, further comprising:

means for downloading the user requested information item to the client from the server cache memory.

16. A network for facilitating communication between a user and a network of information items, comprising:

a remote data storage device for storing the information items, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;

a client device having a user interface program thereon, for allowing a user to interface with the network and request a download of the information items;

a server device, in communication with the client device and in communication with the remote storage device, for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in server cache memory;

a data collection module for collecting and storing successive user actions; and

a probability module in communication with the data collection module for calculating a probability for the links, and for comparing the probability to a predetermined threshold value, and for retrieving the information items associated with the links from the remote data storage devices and storing the information items in the server cache memory in advance of a user request for the selected information items.

17. The network of claim 16, wherein the probability module updates the probabilities assigned to the links with each successive user activity.

18. The network of claim 16, wherein the probability module aborts retrieving the predicted information items if the user requests an information item other than the predicted information items.

19. The network of claim 16, wherein the probability module continues retrieving the predicted information items from the remote data storage devices and storing the predicted information items in the server cache memory if the user requests the predicted information item.

20. The network of claim 19, wherein the probability module downloads the user requested information item to the client from the server cache memory.